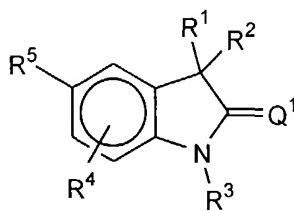


What is Claimed:

1. A method of treating acne and/or hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula I, or a tautomer thereof, and a physiologically compatible carrier, wherein formula I is:



I

wherein:

R¹ and R² are selected from the group consisting of H, alkyl, substituted alkyl, OH, O(alkyl), O(substituted alkyl), O(Acetyl), aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, alkylaryl, substituted alkylaryl, alkylheteroaryl, substituted alkylheteroaryl, 1-propynyl, substituted 1-propynyl, 3-propynyl, and substituted 3-propynyl;

or R¹ and R² are joined to form a ring selected from the group consisting of -CH₂(CH₂)_nCH₂-, -CH₂CH₂C(CH₃)₂CH₂CH₂-, -O(CH₂)_mCH₂-, -O(CH₂)_pO-, -CH₂CH₂OCH₂CH₂-, -CH₂CH₂N(H)CH₂CH₂-, and -CH₂CH₂N(alkyl)CH₂CH₂-;

m is an integer from 1 to 4;

n is an integer from 1 to 5;

p is an integer from 1 to 4;

or R¹ and R² form a double bond to C(CH₃)₂, C(cycloalkyl), O, or C(cycloether);

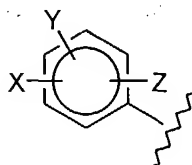
R³ is selected from the group consisting of H, OH, NH₂, C₁ to C₆ alkyl, substituted C₁ to C₆ alkyl, C₃ to C₆ alkenyl, substituted C₃ to C₆ alkenyl, alkynyl, substituted alkynyl, and COR^A;

R^A is selected from the group consisting of H, C_1 to C_3 alkyl, substituted C_1 to C_3 alkyl, C_1 to C_3 alkoxy, substituted C_1 to C_3 alkoxy, C_1 to C_3 aminoalkyl, and substituted C_1 to C_3 aminoalkyl;

R^4 is selected from the group consisting of H, halogen, CN, NH_2 , C_1 to C_6 alkyl, substituted C_1 to C_6 alkyl, C_1 to C_6 alkoxy, substituted C_1 to C_6 alkoxy, C_1 to C_6 aminoalkyl, and substituted C_1 to C_6 aminoalkyl;

R^5 is selected from the group consisting of a), b) and c):

a) a substituted benzene ring having the structure:



X is selected from the group consisting of halogen, OH, CN, C_1 to C_3 alkyl, substituted C_1 to C_3 alkyl, C_1 to C_3 alkoxy, substituted C_1 to C_3 alkoxy, C_1 to C_3 thioalkyl, substituted C_1 to C_3 thioalkyl, $S(O)alkyl$, $S(O)_2alkyl$, C_1 to C_3 aminoalkyl, substituted C_1 to C_3 aminoalkyl, NO_2 , C_1 to C_3 perfluoroalkyl, substituted C_1 to C_3 perfluoroalkyl, 5 or 6 membered heterocyclic ring having 1 to 3 heteroatoms, $CONH_2$, $CSNH_2$, $CNHNHOH$, CNH_2NOH , $CNHNOH$, COR^B , CSR^B , $OCOR^B$, and $NR^C COR^B$;

R^B is selected from the group consisting of H, C_1 to C_3 alkyl, substituted C_1 to C_3 alkyl, aryl, substituted aryl, C_1 to C_3 alkoxy, substituted C_1 to C_3 alkoxy, C_1 to C_3 aminoalkyl, and substituted C_1 to C_3 aminoalkyl;

R^C is H, C_1 to C_3 alkyl, or substituted C_1 to C_3 alkyl;

Y and Z are independently selected from the group consisting of H, halogen, CN, NO_2 , C_1 to C_3 alkoxy, substituted C_1 to C_3 alkoxy, C_1 to C_4 alkyl, substituted C_1 to C_4 alkyl, C_1 to C_3 thioalkyl, and substituted C_1 to C_3 thioalkyl;

b) a five or six membered heterocyclic ring comprising 1, 2, or 3 heteroatoms selected from the group consisting of O, S, SO, SO_2 and NR^6 and having one or two independent substituents from the group consisting of H, halogen, CN, NO_2 , C_1 to C_4 alkyl, substituted C_1 to C_4 alkyl, C_1 to C_3 alkoxy, substituted C_1 to C_3

alkoxy, C₁ to C₃ aminoalkyl, substituted C₁ to C₃ aminoalkyl, COR^D, CSR^D, and NR^ECOR^D;

R^D is H, NH₂, C₁ to C₃ alkyl, substituted C₁ to C₃ alkyl, aryl, substituted aryl, C₁ to C₃ alkoxy, substituted C₁ to C₃ alkoxy, C₁ to C₃ aminoalkyl, or substituted C₁ to C₃ aminoalkyl;

R^E is H, C₁ to C₃ alkyl, or substituted C₁ to C₃ alkyl;

R⁶ is H, C₁ to C₃ alkyl, substituted C₁ to C₃ alkyl, or C₁ to C₄CO₂alkyl;

or

c) an indol-4-yl, indol-7-yl or benzo-2-thiophene moiety, wherein said moiety is optionally substituted by from 1 to 3 substituents selected from the group consisting of halogen, alkyl, substituted alkyl, CN, NO₂, alkoxy, substituted alkoxy, and CF₃;

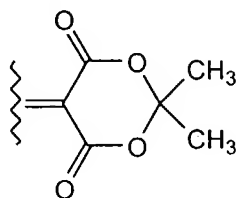
Q¹ is S, NR⁷, or CR⁸R⁹;

R⁷ is selected from the group consisting of CN, C₁ to C₆ alkyl, substituted C₁ to C₆ alkyl, C₃ to C₈ cycloalkyl, substituted C₃ to C₈ cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, SO₂CF₃, OR¹¹, and NR¹¹R¹²;

R⁸ and R⁹ are independent substituents selected from the group consisting of H, alkyl, substituted alkyl, acyl, substituted acyl, aroyl, substituted aroyl, C₃ to C₈ cycloalkyl, substituted C₃ to C₈ cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, NO₂, CN, and CO₂R¹⁰;

R¹⁰ is C₁ to C₃ alkyl or substituted C₁ to C₃ alkyl;

or CR⁸R⁹ comprise a six membered ring having the structure:



R^{11} and R^{12} are independently selected from the group consisting of H, alkyl, substituted alkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, sulfonyl, and substituted sulfonyl; or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

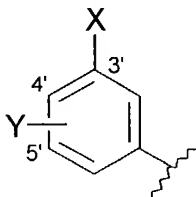
2. The method according to Claim 1, wherein:

R^1 and R^2 are joined to form a $-\text{CH}_2(\text{CH}_2)_n\text{CH}_2-$ ring;

n is 3;

R^3 and R^4 are H;

R^5 is the substituted benzene ring having the structure:



X is selected from the group consisting of halogen, CN, CONH_2 , CSNH_2 , COR^B , CSR^B , C_1 to C_3 alkoxy, C_1 to C_3 alkyl, NO_2 , C_1 to C_3 perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C_1 to C_3 thioalkyl;

R^B is C_1 to C_3 aminoalkyl or substituted C_1 to C_3 aminoalkyl, wherein said aminoalkyl is $\text{NH}(\text{alkyl})$ or $\text{N}(\text{alkyl})_2$;

Y is selected from the group consisting of H, halogen, CN, NO_2 , C_1 to C_3 alkoxy, C_1 to C_4 alkyl, and C_1 to C_3 thioalkyl.

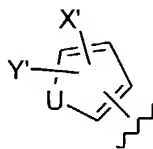
3. The method according to Claim 1, wherein:

R^1 and R^2 are joined to form the $-\text{CH}_2(\text{CH}_2)_n\text{CH}_2-$ ring;

n is 3;

R^3 and R^4 are H;

R⁵ is the five membered ring having the structure:



U is O, S, or NR⁶;

X' is selected from the group consisting of halogen, CN, NO₂, CONH₂, CSNH₂, COR^B, CSR^B, C₁ to C₃ alkyl, and C₁ to C₃ alkoxy;

R^B is C₁ to C₃ aminoalkyl or substituted C₁ to C₃ aminoalkyl, wherein said aminoalkyl is NH(alkyl) or N(alkyl)₂;

Y' is selected from the group consisting of H, halogen, and C₁ to C₄ alkyl, wherein said halogen is F.

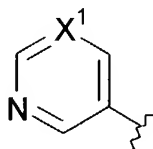
4. The method according to Claim 1, wherein:

R¹ and R² are joined to form a -CH₂(CH₂)_nCH₂- ring;

n is 3;

R³ and R⁴ are H;

R⁵ is the six membered ring having the structure:



X¹ is N or CX²;

X² is halogen, CN, CONH₂, CSNH₂, COR^B, CSR^B, or NO₂;

R^B is C₁ to C₃ aminoalkyl or substituted C₁ to C₃ aminoalkyl, wherein said aminoalkyl is NH(alkyl) or N(alkyl)₂.

5. The method according to claim 1, wherein:

R¹ and R² are alkyl or substituted alkyl;

R³ is H.

6. The method according to claim 1, wherein:

R^1 and R^2 are joined to form a ring selected from the group consisting of $-\text{CH}_2(\text{CH}_2)_n\text{CH}_2-$, $-\text{CH}_2\text{CH}_2\text{C}(\text{CH}_3)_2\text{CH}_2\text{CH}_2-$, $-\text{O}(\text{CH}_2)_m\text{CH}_2-$, $-\text{O}(\text{CH}_2)_p\text{O}-$, $-\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2-$, $-\text{CH}_2\text{CH}_2\text{N}(\text{H})\text{CH}_2\text{CH}_2-$, and $-\text{CH}_2\text{CH}_2\text{N}(\text{alkyl})\text{CH}_2\text{CH}_2-$;

R^3 is H.

7. The method according to claim 1, wherein:

R^3 is H;

Q^1 is S or NR^7 .

8. The method according to claim 1, wherein the compound is delivered orally.

9. The method according to claims 1, wherein said compound of formula I is selected from the group consisting of 5'-(3-Chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1H)-thione, 3-(1',2'-Dihydro-2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)benzonitrile, 4-1',2'-Dihydro-2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-2-thiophenecarbonitrile, 3-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-5-fluorobenzonitrile, 4-Methyl-5-(1,2-dihydro-2-thioxospiro[cyclohexane-1,3-[3H]-indol]-5-yl)-2-thiophenethioamide, 5-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5'-yl)-1H-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-1-(tert-butoxycarbonyl)-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-1-H-pyrrole-2-carbonitrile, 5-(2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1-methyl-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-3thiophenecarbonitrile, 5-(1,2-Dihydro-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-2thiophenecarbonitrile, 5-(3-Fluoro-4-methoxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(2-Amino-5-pyrimidinyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione,

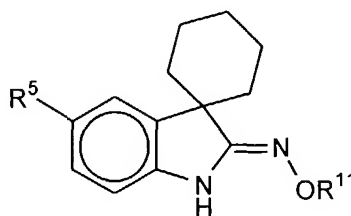
3-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-5-fluorobenzonitrile, 5-(3-chlorophenyl)-3,3-dimethyl-1,3-dihydro-2H-indole-2-thione, 3-Benzyl-5-(3-chlorophenyl)-3-methyl-1,3-dihydro-2H-indole-2-thione, 4-(3,3-dimethyl-2-thioxo-2,3-dihydro-1H-indol-5-yl)-2-furonitrile, 5-(3-methoxyphenyl)-3,3-dimethyl-1,3-dihydro-2H-indole-2-thione, 3-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-fluorobenzonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-3-pyridinecarbonitrile, 5-(3,4-Difluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(5-Chloro-2-thienyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-3-furancarbonitrile, 5-(3-Chloro-4-fluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-Chloro-5-fluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3,5-Difluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-propyl-2-thiophenecarbonitrile, 5-(3-Fluoro-4-nitrophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 4-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-furancarbonitrile, 5''-(3-Chlorophenyl)spiro[cyclobutane-1,3''-[3H]indol]-2''(1''H)-thione, 5''-(2-Chlorophenyl)spiro[cyclohexane-1,3''-[3H]indol]-2''(1''H)-thione, 5''-(4-Chlorophenyl)spiro[cyclohexane-1,3''-[3H]indol]-2''(1''H)-thione, 5-(1'',2''-Dihydro-2''-thioxospiro[cyclohexane-1,3''-[3H]indol]-5''-yl)-4-methyl-2-thiophenecarbonitrile, 5-(1'',2''-Dihydro-2''-thioxospiro[cyclohexane-1,3''-[3H]indol]-5''-yl)-2-thiophenecarbonitrile, 5''-(3-Fluorophenyl)spiro[cyclohexane-1,3''-[3H]indol]-2''(1''H)-thione, 5-(3-Hydroxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-chlorophenyl)-3,3-diethyl-1,3-dihydro-2H-indole-2-thione, 5-(4-Fluoro-3-(trifluoromethyl)phenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 4-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-fluorobenzonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-n-butyl-2-thiophenecarbonitrile, 5-(3-Fluoro-5-methoxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-Chlorophenyl)-N-hydroxyspiro[cyclohexane-1,3'-[3H]indol]-2-amine, N-(Acetyloxy)-5'-(3-chlorophenyl)spiro[cyclohexane-1,3'-

[3H]indol]-2''amine, 5'-(3-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(2-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(4-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3,4-difluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-methoxyphenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-nitrophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-cyanophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 3-(1',2'-Dihydro-2'-(hydroxyimino)spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-5-fluorobenzonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-4-methyl-2-thiophenecarbonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarbonitrile, 4-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarbonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-1H-pyrrole-1-methyl-2-carbonitrile, 5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-1H-pyrrole-2-carbonitrile, 4-(Spiro[cyclohexane-1,3'-[3H]indol]-2'(acetoxyimino)-5'-yl)-2-thiophenecarbonitrile, 3-Fluoro-N'-hydroxy-5-(2'-(hydroxyamino)spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)benzenecarboximidamide, N'-Hydroxy-5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-4-methyl-2-thiophenecarboximidamide, N'-Hydroxy-4-(spiro[cyclohexane-1,3'-[3H]indol]-2'-hydroxyimino)-5'-yl-2-thiophenecarboximidamide, N'-Hydroxy-5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarboximidamide, 5'-(3-Chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(3-Cyano-5-fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-1H-pyrrol-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-thiophen-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-3-methyl-thiophen-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-thiophen-3-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 3-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-5-fluoro-benzonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-

yl)-1H-pyrrole-2-carbonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1-methyl-1H-pyrrole-2-carbonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-thiophene-2-carbonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-4-methyl-thiophene-2-carbonitrile, and 4-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-thiophene-2-carbonitrile, or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

10. The method according to claims 1, wherein said compound is 5'-(5-Cyano-1-methyl-1H-pyrrol-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

11. A method of treating acne and/or hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula II, or a tautomer thereof, and a physiologically compatible carrier, wherein formula II is:



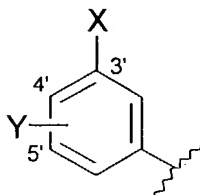
II

wherein:

R¹¹ is selected from the group consisting of H, acyl, substituted acyl, aroyl, substituted aroyl, sulfonyl, and substituted sulfonyl;

R⁵ is (i), (ii), or (iii):

- (i) a substituted benzene ring having the structure:

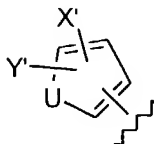


wherein:

X is selected from the group consisting of halogen, CN, CONH₂, CSNH₂, CONHalkyl, CSNHalkyl, CON(alkyl)₂, CSN(alkyl)₂, CNHNHOH, CNH₂NOH, C₁ to C₃ alkoxy, C₁ to C₃ alkyl, NO₂, C₁ to C₃ perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C₁ to C₃ thioalkyl;

Y is selected from the group consisting of H, halogen, CN, NO₂, C₁ to C₃ alkoxy, C₁ to C₄ alkyl, and C₁ to C₃ thioalkyl;

- (ii) a five membered ring having the structure:



wherein:

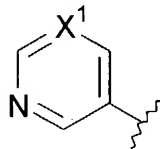
U is O, S, or NR⁶;

R⁶ is H, C₁ to C₃ alkyl, or C₁ to C₄ CO₂alkyl;

X' is selected from the group consisting of halogen, CN, NO₂, CONH₂, CNHNHOH, CNH₂NOH, CSNH₂, CONHalkyl, CSNHalkyl, CON(alkyl)₂, CSN(alkyl)₂, C₁ to C₃ alkyl, and C₁ to C₃ alkoxy;

Y' is selected from the group consisting of H, F, and C₁ to C₄ alkyl; or

- (iii) a six membered ring having the structure:



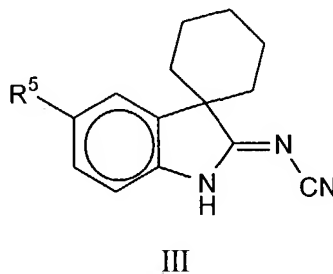
wherein:

X¹ is N or CX²;

X^2 is halogen, CN, CONH_2 , CSNH_2 , CONHalkyl , CSNHalkyl , CON(alkyl)_2 , CSN(alkyl)_2 or NO_2 ;
or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

12. The method according to claim 11, wherein R^5 is said five membered ring and U is O or S.

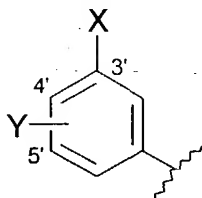
13. A method of treating acne and/or hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula III, or a tautomer thereof, and a physiologically compatible carrier, wherein formula III is:



wherein:

R^5 is (i), (ii), or (iii):

(i) a substituted benzene ring having the structure:

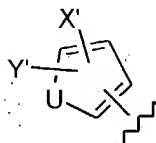


wherein:

X is selected from the group consisting of halogen, CN, CONH_2 , CSNH_2 , CONHalkyl , CSNHalkyl , CON(alkyl)_2 , CSN(alkyl)_2 , CNHNOH , C_1 to C_3 alkoxy, C_1 to C_3 alkyl, NO_2 , C_1 to C_3 perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C_1 to C_3 thioalkyl;

Y is selected from the group consisting of H, halogen, CN, NO₂, C₁ to C₃ alkoxy, C₁ to C₄ alkyl, and C₁ to C₃ thioalkyl;

(ii) a five membered ring having the structure:



wherein:

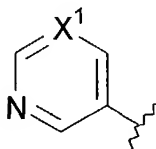
U is O, S, or NR⁶;

R⁶ is H, C₁ to C₃ alkyl, or C₁ to C₄ CO₂alkyl;

X' is selected from the group consisting of halogen, CN, NO₂, CONH₂, CSNH₂, CONHalkyl, CSNHalkyl, CON(alkyl)₂, CSN(alkyl)₂, C₁ to C₃ alkyl, and C₁ to C₃ alkoxy;

Y' is selected from the group consisting of H, F and C₁ to C₄ alkyl; or

(iii) a six membered ring having the structure:



wherein:

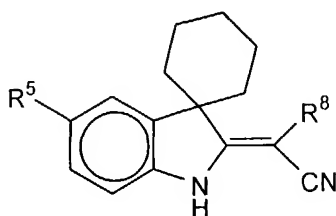
X¹ is N or CX²;

X² is halogen, CN, CONH₂, CSNH₂, CONHalkyl, CSNHalkyl, CON(alkyl)₂, CSN(alkyl)₂ or NO₂;

or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

14. The method according to claim 13, wherein R⁵ is the five membered ring (ii) and U is O or S.

15. A method of treating acne and/or hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula IV, or a tautomer thereof, and a physiologically compatible carrier, wherein formula IV is:



IV

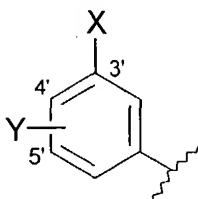
wherein:

R^8 is selected from the group consisting of H, CO_2R^{10} , acyl, substituted acyl, aroyl, substituted aroyl, alkyl, substituted alkyl, and CN;

R^{10} is C_1 to C_3 alkyl;

R^5 is (i), (ii), or (iii):

(i) a substituted benzene ring having the structure:

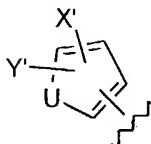


wherein:

X is selected from the group consisting of halogen, CN, CONH_2 , CSNH_2 , CONHalkyl , CSNHalkyl , CON(alkyl)_2 , CSN(alkyl)_2 , CNHNOH , C_1 to C_3 alkoxy, C_1 to C_3 alkyl, NO_2 , C_1 to C_3 perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C_1 to C_3 thioalkyl;

Y is selected from the group consisting of H, halogen, CN, NO_2 , C_1 to C_3 alkoxy, C_1 to C_4 alkyl, and C_1 to C_3 thioalkyl;

(ii) a five membered ring having the structure:



wherein:

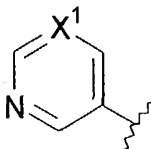
U is O, S, or NR⁶;

R⁶ is H, C₁ to C₃ alkyl, or C₁ to C₄ CO₂alkyl;

X' is selected from the group consisting of halogen, CN, NO₂, CONH₂, CSNH₂, CONHalkyl, CSNHalkyl, CON(alkyl)₂, CSN(alkyl)₂, C₁ to C₃ alkyl, and C₁ to C₃ alkoxy;

Y' is selected from the group consisting of H, F and C₁ to C₄ alkyl;

(iii) a six membered ring having the structure:



wherein:

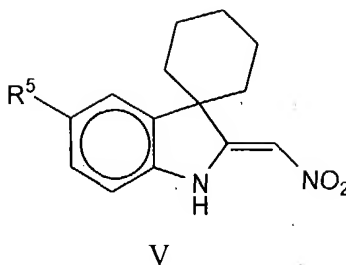
X¹ is N or CX²;

X² is halogen, CN, CONH₂, CSNH₂, CONHalkyl, CSNHalkyl, CON(alkyl)₂, CSN(alkyl)₂ or NO₂;

or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

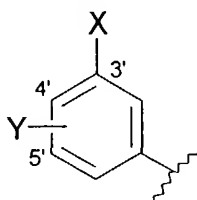
16. The method according to claim 15, wherein R⁵ is the five-membered ring (ii) and U is O or S.

17. A method of treating acne and hirsutism comprising the step of delivering to a mammal in need thereof a composition comprising a compound of formula V, or a tautomer thereof, and a physiologically compatible carrier, wherein formula V is:



R^5 is (i), (ii), or (iii):

(i) a substituted benzene ring having the structure:

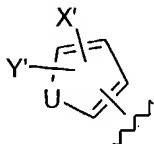


wherein:

X is selected from the group consisting of halogen, CN, CONH_2 , CSNH_2 , CONHalkyl , CSNHalkyl , CON(alkyl)_2 , CSN(alkyl)_2 , CNHNOH , C_1 to C_3 alkoxy, C_1 to C_3 alkyl, NO_2 , C_1 to C_3 perfluoroalkyl, 5 membered heterocyclic ring comprising 1 to 3 heteroatoms, and C_1 to C_3 thioalkyl;

Y is selected from the group consisting of H, halogen, CN, NO_2 , C_1 to C_3 alkoxy, C_1 to C_4 alkyl, and C_1 to C_3 thioalkyl;

(ii) a five membered ring having the structure:



wherein:

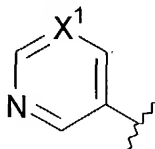
U is O, S, or NR^6 ;

R^6 is H, C_1 to C_3 alkyl, or C_1 to C_4 CO_2alkyl ;

X' is selected from the group consisting of halogen, CN, NO_2 , CONH_2 , CSNH_2 , CONHalkyl , CSNHalkyl , CON(alkyl)_2 , CSN(alkyl)_2 , C_1 to C_3 alkyl, and C_1 to C_3 alkoxy;

Y' is selected from the group consisting of H, F, and C_1 to C_4 alkyl;

- (iii) a six membered ring having the structure:



wherein:

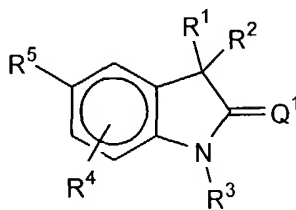
X^1 is N or CX^2 ;

X^2 is halogen, CN, $CONH_2$, $CSNH_2$, $CONHalkyl$, $CSNHalkyl$, $CON(alkyl)_2$, $CSN(alkyl)_2$ or NO_2 ;
or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

18. The method according to claim 17, wherein R^5 is the five membered ring (ii) and U is O or S.

19. A composition for conditioning the skin of a mammal in need thereof comprising:

- (i) a skin conditioning component; and
- (ii) a compound of formula I, or a tautomer thereof:



I

wherein:

R^1 and R^2 are selected from the group consisting of H, alkyl, substituted alkyl, OH, O(alkyl), O(substituted alkyl), O(Acetyl), aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, alkylaryl, substituted alkylaryl, alkylheteroaryl, substituted alkylheteroaryl, 1-propynyl, substituted 1-propynyl, 3-propynyl, and substituted 3-propynyl;

or R^1 and R^2 are joined to form a ring selected from the group consisting of

$-\text{CH}_2(\text{CH}_2)_n\text{CH}_2-$, $-\text{CH}_2\text{CH}_2\text{C}(\text{CH}_3)_2\text{CH}_2\text{CH}_2-$, $-\text{O}(\text{CH}_2)_m\text{CH}_2-$, $-\text{O}(\text{CH}_2)_p\text{O}-$,
 $-\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2-$, $-\text{CH}_2\text{CH}_2\text{N}(\text{H})\text{CH}_2\text{CH}_2-$, and $-\text{CH}_2\text{CH}_2\text{N}(\text{alkyl})\text{CH}_2\text{CH}_2-$;

m is an integer from 1 to 4;

n is an integer from 1 to 5;

p is an integer from 1 to 4;

or R^1 and R^2 form a double bond to $\text{C}(\text{CH}_3)_2$, $\text{C}(\text{cycloalkyl})$, O, or $\text{C}(\text{cycloether})$;

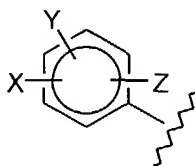
R^3 is selected from the group consisting of H, OH, NH_2 , C_1 to C_6 alkyl, substituted C_1 to C_6 alkyl, C_3 to C_6 alkenyl, substituted C_3 to C_6 alkenyl, alkynyl, substituted alkynyl, and COR^A ;

R^A is selected from the group consisting of H, C_1 to C_3 alkyl, substituted C_1 to C_3 alkyl, C_1 to C_3 alkoxy, substituted C_1 to C_3 alkoxy, C_1 to C_3 aminoalkyl, and substituted C_1 to C_3 aminoalkyl;

R^4 is selected from the group consisting of H, halogen, CN, NH_2 , C_1 to C_6 alkyl, substituted C_1 to C_6 alkyl, C_1 to C_6 alkoxy, substituted C_1 to C_6 alkoxy, C_1 to C_6 aminoalkyl, and substituted C_1 to C_6 aminoalkyl;

R^5 is selected from the group consisting of a), b) and c):

a) a substituted benzene ring having the structure:



X is selected from the group consisting of halogen, OH, CN, C_1 to C_3 alkyl, substituted C_1 to C_3 alkyl, C_1 to C_3 alkoxy, substituted C_1 to C_3 alkoxy, C_1 to C_3 thioalkyl, substituted C_1 to C_3 thioalkyl, $\text{S}(\text{O})\text{alkyl}$, $\text{S}(\text{O})_2\text{alkyl}$, C_1 to C_3 aminoalkyl, substituted C_1 to C_3 aminoalkyl, NO_2 , C_1 to C_3 perfluoroalkyl, substituted C_1 to C_3 perfluoroalkyl, 5 or 6 membered heterocyclic ring comprising 1 to 3 heteroatoms, CONH_2 , CSNH_2 , CNHNHOH , CNH_2NOH , CNHNOH , COR^B , CSR^B , OCOR^B , and NR^CCOR^B ;

R^B is selected from the group consisting of H, C_1 to C_3 alkyl,

substituted C₁ to C₃ alkyl, aryl, substituted aryl, C₁ to C₃ alkoxy, substituted C₁ to C₃ alkoxy, C₁ to C₃ aminoalkyl, and substituted C₁ to C₃ aminoalkyl;

R^C is H, C₁ to C₃ alkyl, or substituted C₁ to C₃ alkyl;

Y and Z are independently selected from the group consisting of H, halogen, CN, NO₂, C₁ to C₃ alkoxy, substituted C₁ to C₃ alkoxy, C₁ to C₄ alkyl, substituted C₁ to C₄ alkyl, C₁ to C₃ thioalkyl, and substituted C₁ to C₃ thioalkyl;

b) a five or six membered heterocyclic ring comprising 1, 2, or 3 heteroatoms selected from the group consisting of O, S, SO, SO₂ and NR⁶ and having one or two independent substituents from the group consisting of H, halogen, CN, NO₂, C₁ to C₄ alkyl, substituted C₁ to C₄ alkyl, C₁ to C₃ alkoxy, substituted C₁ to C₃ alkoxy, C₁ to C₃ aminoalkyl, substituted C₁ to C₃ aminoalkyl, COR^D, CSR^D, and NR^ECOR^D;

R^D is H, NH₂, C₁ to C₃ alkyl, substituted C₁ to C₃ alkyl, aryl, substituted aryl, C₁ to C₃ alkoxy, substituted C₁ to C₃ alkoxy, C₁ to C₃ aminoalkyl, or substituted C₁ to C₃ aminoalkyl;

R^E is H, C₁ to C₃ alkyl, or substituted C₁ to C₃ alkyl;

R⁶ is H, C₁ to C₃ alkyl, substituted C₁ to C₃ alkyl, or C₁ to C₄CO₂alkyl;

or

c) an indol-4-yl, indol-7-yl or benzo-2-thiophene moiety, wherein said moiety is optionally substituted by from 1 to 3 substituents selected from the group consisting of halogen, alkyl, substituted alkyl, CN, NO₂, alkoxy, substituted alkoxy, and CF₃;

Q¹ is S, NR⁷, or CR⁸R⁹;

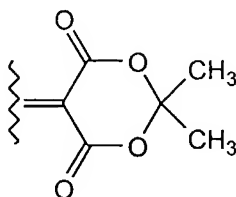
R⁷ is selected from the group consisting of CN, C₁ to C₆ alkyl, substituted C₁ to C₆ alkyl, C₃ to C₈ cycloalkyl, substituted C₃ to C₈ cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, SO₂CF₃, OR¹¹, and NR¹¹R¹²;

R⁸ and R⁹ are independent substituents selected from the group consisting of H, C₁ to C₆ alkyl, substituted C₁ to C₆ alkyl, C₃ to C₈ cycloalkyl, substituted C₃ to C₈

cycloalkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, NO₂, CN, and CO₂R¹⁰;

R¹⁰ is C₁ to C₃ alkyl or substituted C₁ to C₃ alkyl;

or CR⁸R⁹ comprise a six membered ring having the structure:



R¹¹ and R¹² are independently selected from the group consisting of H, alkyl, substituted alkyl, aryl, substituted aryl, heterocyclic ring, substituted heterocyclic ring, acyl, substituted acyl, aroyl, substituted aroyl, sulfonyl, and substituted sulfonyl; or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

20. The composition according to claim 19, wherein:

R¹ and R² are alkyl or substituted alkyl;

R³ is H.

21. The composition according to claim 19, wherein:

R¹ and R² are joined to form a ring selected from the group consisting of -CH₂(CH₂)_nCH₂-, -CH₂CH₂C(CH₃)₂CH₂CH₂-, -O(CH₂)_mCH₂-, -O(CH₂)_pO-, -CH₂CH₂OCH₂CH₂-, -CH₂CH₂N(H)CH₂CH₂-, and -CH₂CH₂N(alkyl)CH₂CH₂-;

R³ is H.

22. The composition according to claim 19, wherein:

R³ is H;

Q¹ is S or NR⁷.

23. A method of conditioning the skin comprising the step of delivering to a mammal in need thereof a composition according to claim 19.

24. The method according to claims 23 wherein said compound of formula I is selected from the group consisting of 5'-(3-Chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1H)-thione, 3-(1',2'-Dihydro-2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)benzonitrile, 4-1',2'-Dihydro-2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-2-thiophenecarbonitrile, 3-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-5-fluorobenzonitrile, 4-Methyl-5-(1,2-dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-thiophenethioamide, 5-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5'-yl)-1H-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-1-(tert-butoxycarbonyl)-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-1-H-pyrrole-2-carbonitrile, 5-(2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1-methyl-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-3thiophenecarbonitrile, 5-(1,2-Dihydro-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-2thiophenecarbonitrile, 5-(3-Fluoro-4-methoxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(2-Amino-5-pyrimidinyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 3-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-5-fluorobenzonitrile, 5-(3-chlorophenyl)-3,3-dimethyl-1,3-dihydro-2H-indole-2-thione, 3-Benzyl-5-(3-chlorophenyl)-3-methyl-1,3-dihydro-2H-indole-2-thione, 4-(3,3-dimethyl-2-thioxo-2,3-dihydro-1H-indol-5-yl)-2-furonitrile, 5-(3-methoxyphenyl)-3,3-dimethyl-1,3-dihydro-2H-indole-2-thione, 3-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-fluorobenzonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-3-pyridinecarbonitrile, 5-(3,4-Difluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(5-Chloro-2-thienyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-3-furancarbonitrile, 5-(3-Chloro-4-fluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-Chloro-5-fluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3,5-Difluorophenyl)spiro[cyclohexane-1,3-[3H]indol]-

2(1H)-thione, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-propyl-2-thiophenecarbonitrile, 5-(3-Fluoro-4-nitrophenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 4-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-furancarbonitrile, 5''-(3-Chlorophenyl)spiro[cyclobutane-1,3''-[3H]indol]-2''(1''H)-thione, 5''-(2-Chlorophenyl)spiro[cyclohexane-1,3''-[3H]indol]-2''(1''H)-thione, 5''-(4-Chlorophenyl)spiro[cyclohexane-1,3''-[3H]indol]-2''(1''H)-thione, 5-(1'',2''-Dihydro-2''-thioxospiro[cyclohexane-1,3''-[3H]indol]-5''-yl)-4-methyl-2-thiophenecarbonitrile, 5-(1'',2''-Dihydro-2''-thioxospiro[cyclohexane-1,3''-[3H]indol]-5''-yl)-2-thiophenecarbonitrile, 5''-(3-Fluorophenyl)spiro[cyclohexane-1,3''-[3H]indol]-2''(1''H)-thione, 5-(3-Hydroxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-chlorophenyl)-3,3-diethyl-1,3-dihydro-2H-indole-2-thione, 5-(4-Fluoro-3-(trifluoromethyl)phenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 4-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-fluorobenzonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-n-butyl-2-thiophenecarbonitrile, 5-(3-Fluoro-5-methoxyphenyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(3-Chlorophenyl)-N-hydroxyspiro[cyclohexane-1,3'-[3H]indol]-2(1H)-thione, N-(Acetyloxy)-5'-(3-chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'amine, N-(Acetyloxy)-5'-(3-chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'amine, 5'-(3-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(2-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(4-Fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3,4-difluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-methoxyphenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-nitrophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 5'-(3-cyanophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'(1'H)-one oxime, 3-(1',2'-Dihydro-2'-(hydroxyimino)spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-5-fluorobenzonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-4-methyl-2-thiophenecarbonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarbonitrile, 4-(Spiro[cyclohexane-1,3'-[3H]indol]-

2'-(hydroxyimino)-5'-yl)-2-thiophenecarbonitrile, 5-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-1H-pyrrole-1-methyl-2-carbonitrile, 5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-1H-pyrrole-2-carbonitrile, 4-(Spiro[cyclohexane-1,3'-[3H]indol]-2'-(acetoxymino)-5'-yl)-2-thiophenecarbonitrile, 3-Fluoro-N'-hydroxy-5-(2'-(hydroxyamino)spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)benzenecarboximidamide, N'-Hydroxy-5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-4-methyl-2-thiophenecarboximidamide, N'-Hydroxy-4-(spiro[cyclohexane-1,3'-[3H]indol]-2'-hydroxyimino)-5'-yl-2-thiophenecarboximidamide, N'-Hydroxy-5-(spiro[cyclohexane-1,3'-[3H]indol]-2'-(hydroxyimino)-5'-yl)-2-thiophenecarboxidamide, 5'-(3-Chlorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(3-Cyano-5-fluorophenyl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-1H-pyrrol-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-thiophen-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-3-methyl-thiophen-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 5'-(5-Cyano-thiophen-3-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, 3-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-5-fluoro-benzonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1H-pyrrole-2-carbonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1-methyl-1H-pyrrole-2-carbonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-thiophene-2-carbonitrile, 5-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-4-methyl-thiophene-2-carbonitrile, and 4-(2'-Cyanomethylene-spiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-thiophene-2-carbonitrile, or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

25. The method according to claim 23, wherein said compound is 5'-(5-Cyano-1-methyl-1H-pyrrol-2-yl)spiro[cyclohexane-1,3'-[3H]indol]-2'-ylidenecyanamide, or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.